

Health, United States, 2006

With Chartbook on Trends in the Health of Americans



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

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Preface

Health, United States, 2006 is the 30th report on the health status of the Nation and is submitted by the Secretary of the Department of Health and Human Services to the President and Congress of the United States in compliance with Section 308 of the Public Health Service Act. This report was compiled by the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC). The National Committee on Vital and Health Statistics served in a review capacity.

The *Health, United States* series presents national trends in health statistics. Each report includes an executive summary, highlights, a chartbook, trend tables, extensive appendixes, and an index.

Chartbook

The *Chartbook on Trends in the Health of Americans* updates and expands information from previous chartbooks and introduces this year's special feature on pain. Pain affects physical and mental functioning, affects quality of life, reduces productivity, and is a major reason for health care utilization. The chartbook assesses the Nation's health by presenting trends and current information on selected determinants and measures of health status and utilization of health care. Many measures are shown separately for persons of different ages because of the strong effect of age on health. Selected figures also highlight differences in determinants and measures of health status and utilization of health care by such characteristics as sex, race, Hispanic origin, education, and poverty status.

Trend Tables

The chartbook section is followed by 147 trend tables organized around four major subject areas: health status and determinants, health care utilization, health care resources, and health care expenditures. A major criterion used in selecting the trend tables is availability of comparable national data over a period of several years. The tables present data for selected years to highlight major trends in health statistics. Earlier editions of *Health, United States* may present data for additional years that are not included in the current printed report. Where possible, these additional years of data are available in Excel spreadsheet files on the *Health, United*

States website. Tables with additional data years are listed in Appendix III.

Racial and Ethnic Data

Many tables in *Health, United States* present data according to race and Hispanic origin consistent with Department-wide emphasis on expanding racial and ethnic detail when presenting health data. Trend data on race and ethnicity are presented in the greatest detail possible after taking into account the quality of data, the amount of missing data, and the number of observations. Standards for classification of federal data on race and ethnicity are described in Appendix II, Race.

Education and Income Data

Many tables in *Health, United States* present data according to socioeconomic status, using education and poverty level as proxy measures. Education and income data are generally obtained directly from survey respondents, and are not generally available from records-based data collection systems including the National Health Care Survey (see Appendix I). State vital statistics systems currently report mother's education on the birth certificate and, based on information from an informant, decedent's education on the death certificate. See Appendix II, Education; Family income; Poverty.

Disability Data

Disability is a complex concept and can include presence of physical or mental impairments that limit a person's ability to perform an important activity, and use of or need for accommodations or interventions required to improve functioning. Information on disability in the U.S. population is critical to health planning and policy. Although some information is currently available from federal data collection systems, the information is limited by a lack of standard definitions and survey questions on disability. Several current initiatives are underway to coordinate and standardize measurement of disability across federal data systems. Until such standardized information is available, *Health, United States* includes the following disability-related information for the civilian noninstitutionalized population: prevalence of limitations of activity due to chronic conditions (Table 58),

vision and hearing limitations for adults (Table 59), and limitations in Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) for the population age 65 and over (Table 58). In addition, disability-related information is provided for the nursing home population (Table 102), Medicare enrollees (Table 139), Medicaid recipients (Table 140), and veterans with service-connected disabilities (Table 142).

Changes in This Edition

Each volume of *Health, United States* is prepared to maximize its usefulness as a standard reference source while maintaining its continuing relevance. Comparability is fostered by including similar trend tables in each volume. Timeliness is maintained by (1) adding new tables each year to reflect emerging topics in public health and (2) improving the content of ongoing tables. *Health, United States, 2006* includes five new trend tables on: the population in federal and state prisons and local jails (Table 2), based on data from the Bureau of Justice Statistics; joint pain (Table 57) and access to care problems due to cost (Table 78), based on the National Health Interview Survey; physician practice characteristics (Table 117), based on the National Ambulatory Medical Care Survey; and health professionals' wages (Table 108), based on data from the Bureau of Labor Statistics.

The *Health, United States, 2006* Chartbook section includes new charts on the population in group quarters (Figure 2), length of time without health insurance (Figure 7), binge drinking and marijuana use among high school students (Figure 11), untreated dental caries among children (Figure 14), percentage of the adult population with three or more chronic conditions (Figure 15), dental visits among children (Figure 19), influenza vaccination among adults (Figure 20), emergency department visits for falls (Figure 21), and hospitalizations with bariatric procedures (Figure 23). The Special Feature includes 10 new charts on pain prevalence and associated health care treatment and costs (Figures 28–37).

Appendixes

Appendix I describes each data source used in the report and provides references for further information about the sources. Data sources are listed alphabetically within two broad

categories: (1) Government Sources and (2) Private and Global Sources.

Appendix II is an alphabetical listing of terms used in the report. It also presents standard populations used for age adjustment (Tables I, II, and III); ICD codes for causes of death shown in *Health, United States* from the Sixth through Tenth Revisions and the years when the Revisions were in effect (Tables IV and V); comparability ratios between ICD–9 and ICD–10 for selected causes (Table VI); ICD–9–CM codes for external cause-of-injury, diagnostic, and procedure categories (Tables VII, X, and XI); effects of adding probe questions for Medicare and Medicaid on health insurance rates in the National Health Interview Survey (Table VIII); industry codes according to the 2002 North American Industry Classification System (Table IX); National Drug Code (NDC) Therapeutic Class recodes of generic analgesic drugs (Table XII); and sample tabulations of NHIS data comparing the 1977 and 1997 Standards for the Classification of Federal Data on Race and Ethnicity (Tables XIII and XIV).

Appendix III lists tables for which additional years of trend data are available electronically in Excel spreadsheet files on the *Health, United States* website and CD-ROM, described below under Electronic Access.

Index

The Index to Trend Tables and Chartbook Figures is a useful tool for locating data by topic. Tables are cross-referenced by such topics as Child and adolescent health; Elderly population age 65 years and over; Women's health; Men's health; state data; American Indian, Asian, Black, and Hispanic origin populations; Education; Injury; Disability; and Metropolitan and nonmetropolitan data.

Electronic Access

Health, United States may be accessed in its entirety on the World Wide Web at www.cdc.gov/nchs/hus.htm. From the *Health, United States* website, one may also register for the *Health, United States* electronic mailing list to receive announcements about release dates and notices of updates to tables.

Health, United States, 2006, the chartbook, and each of the trend tables are available as Acrobat PDF files on the website. Chartbook figures are available as downloadable

PowerPoint® slides. Trend tables and chartbook data tables are available as downloadable Excel spreadsheet files. Trend tables listed in Appendix III include additional years of data not shown in the printed report or .pdf files. Both PDF and spreadsheet files for selected tables will be updated on the website if more current data become available near the time when the printed report is released. Readers who register with the electronic mailing list will be notified of these table updates. Previous editions of *Health, United States* and chartbooks, starting with the 1993 edition, also may be accessed from the *Health, United States* website.

Health, United States is also available on CD-ROM, where it can be viewed, searched, printed, and saved using Adobe Acrobat software on the CD-ROM.

Copies of the Report

Copies of *Health, United States, 2006*, and the CD-ROM can be purchased from the Government Printing Office (GPO) through links to GPO on the National Center for Health Statistics website, Publications and Information Products page.

Questions?

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Executive Summary and Highlights

Executive Summary

Health, United States, 2006, is the 30th annual report on the health status of the Nation prepared by the Secretary of the Department of Health and Human Services for the President and Congress. In a chartbook and 147 detailed tables, it provides an annual picture of health for the entire Nation. Trends are presented on health status and health care utilization, resources, and expenditures.

For those entrusted with safeguarding the Nation's health, monitoring the health of the American people is an essential step in making sound health policy and setting priorities for research and programs. Measures of the population's health provide essential information for assessing how the Nation's resources should be directed to improve the health of the population. Examination of emerging trends identifies diseases, conditions, and risk factors that warrant study and intervention. *Health, United States* presents trends and current information on measures and determinants of the Nation's health. It also identifies differences in health and health care among people of differing races and ethnicities, genders, education and income levels, and geographic locations, and it shows whether these differences are narrowing or increasing. Given the increasing diversity of the Nation and the continuing changes in the health care infrastructure, this is a challenging task, but it is a critically important undertaking.

Overall Health of the Nation

The health of the Nation continues to improve overall in many respects, in part because of the significant resources devoted to public health programs, research, health care, and health education. Life expectancy in the United States continues a long-term upward trend, although the most dramatic increases were in the early part of the 20th century. Over the past century, many diseases have been controlled or their morbidity and mortality substantially reduced. Notable achievements in public health have included the control of infectious diseases such as typhoid and cholera through decontamination of water; implementation of widespread vaccination programs to contain polio, diphtheria, pertussis, and measles; fluoridation of water to drastically reduce the prevalence of dental caries; and improvements in motor vehicle safety through vehicle redesign and efforts to increase usage of seatbelts and motorcycle helmets (1). A sharp

decline in deaths from cardiovascular disease is a major public health achievement that resulted in large part from public education campaigns emphasizing a healthy lifestyle and increased use of cholesterol and hypertension-lowering medications (2). Advances in medical technology, including diagnostic imaging technologies, procedures, and new prescription drugs have extended and improved the quality of countless lives.

Yet, even as progress is made in improving life expectancy, increased longevity is accompanied by increased prevalence of chronic conditions and their associated pain and disability. In recent years, progress in some arenas—declines in infant and cause-specific mortality, morbidity from chronic conditions, reduction in prevalence of risk factors including smoking and lack of exercise—has not been as rapid as in earlier years or trends have been moving in the wrong direction. Moreover, improvements have not been equally distributed by income, race, ethnicity, education, and geography.

Health Status and Its Determinants

In 2003, American men could expect to live 3 years longer, and women more than 1 year longer, than they did in 1990 (Table 27 and Figure 24). Mortality from heart disease, stroke, and cancer continued to decline in recent years (Table 29 and Figure 27). With longer life expectancy, however, comes increasing prevalence of chronic diseases and conditions that are associated with aging. Some diseases, including diabetes and hypertension, produce cumulative damage if not properly treated, while others, such as emphysema and some types of cancer, develop slowly or after long periods of environmental exposure. In 2001–2004, 10% of persons 20 years of age and over and more than one-fifth of adults 60 years and over had diabetes, including those with diabetes previously diagnosed by a physician and those with undiagnosed diabetes determined by results of a fasting blood sugar test (Table 55). About 30% of adults age 20 and over had elevated blood pressure or reported they were taking medications for high blood pressure in 2001–2004, and 17% had high serum cholesterol (Tables 69 and 70). The percentage of the population reporting fair or poor health status, or a limitation of their usual activity due to any chronic condition, increases sharply with age (Tables 58 and 60). In 2004, 32% of those 75 years of age and over reported fair or poor health compared with 22% of people age 65–74 and 6% of young adults age 25–44 years.

Of particular concern in recent years has been the increase in overweight and obesity, which are risk factors for many chronic diseases and disabilities including heart disease, hypertension, and back pain. The rising number of children and adults who are overweight, and the large percentage of Americans who are not physically active (Figures 12, 13, and Tables 72–74) raise additional concerns about Americans' future health (3).

Decreased cigarette smoking among adults is a prime example of a trend that has contributed to overall declines in mortality. However, the rapid drop in cigarette smoking in the two decades following the first Surgeon General's Report in 1964 has slowed in recent years. About one-quarter of men and one-fifth of women were current smokers in 2004 (Figure 10 and Table 63). The percentage of the population with high serum cholesterol has also been decreasing, in part due to the increased use of new cholesterol-lowering medications (Table 70) (4).

Prevalence of some risky behaviors among children and young adults remains at unacceptable levels. In 2005, 30% of high school students in grades 11–12 reported binge drinking, and 22% had used marijuana in the past 30 days. Marijuana use increased from 12% to 20% between 1991 and 2003 among students in grades 9–10 (Figure 11). The percentage of high school students who seriously considered suicide has declined since 1991, but the percentage who attempted suicide has remained stable (7%–9%) (Table 62).

Health Care Utilization and Resources

People use health care services for many reasons: to treat illnesses, injuries, and health conditions; to prevent or delay future health care problems; to reduce pain and increase quality of life; and to obtain information about their health status and prognoses. The study of trends in health care utilization provides important information on these phenomena and spotlights areas that warrant further study. Utilization trends may also be used to project future health care needs and expenditures, as well as training and supply needs.

Americans are increasingly using many types of preventive or early-detection health services. In 2004, 83% of children 19–35 months of age had received a combined vaccination series protecting them against several childhood infectious diseases, and the percentage of children receiving varicella (chickenpox) vaccine has increased sharply since it was first

recommended in 1996 (Table 81). The percentage of women receiving Pap smears and mammograms has increased since 1987 but has leveled off in recent years (Tables 84 and 85).

Rates of ambulatory care visits to office-based physicians and hospital outpatient departments have remained steady since the mid-1990s at 3 to 4 visits per person (data table for Figure 22 and Table 89). Admissions to hospitals and length of stay declined substantially in the 1980s and 1990s, but these declines appear to have leveled off (Tables 96–98). Hospital inpatient care is becoming more intensive and complex, with more procedures such as insertion of coronary artery stents, and hip and knee replacements being performed, particularly on older persons (Table 99). Hospitalizations for procedures that can be performed on an outpatient basis, such as hernia repairs and knee arthroscopies have declined sharply in inpatient settings, and imaging procedures such as diagnostic ultrasound and computerized axial tomography are increasingly performed on an outpatient basis.

The numbers of hospitals and hospital beds continue to decrease. Occupancy rates declined from 1975 to 1990 and have been stable since then (Table 112). The number of physicians in the United States has been increasing along with the overall population, but physicians are not distributed equally across the Nation (Table 104). New and different types of health practitioners and healthcare support occupations continue to evolve. The numbers of dental hygienists and dental assistants, pharmacy technicians, diagnostic medical sonographers, massage therapists, medical assistants, and medical equipment preparers have increased, on average, by 5% or more per year since 1999, while the numbers of audiologists, respiratory therapy technicians, recreational therapists, and occupational therapist aides have all declined, on average, by 5% or more per year (Table 108). Projections indicate that there may be an increasing shortage of nurses and pharmacists, as well as other health professionals, needed to care for our aging population (5,6).

Expenditures and Health Insurance

The United States spends more on health per capita than any other country, and health spending continues to increase rapidly. Much of this spending is for care that controls or reduces the impact of chronic diseases and conditions affecting an aging population. In 2004, national health care expenditures in the United States totaled \$1.9 trillion, a 7.9%

increase from 2003 (Table 120). Hospital spending, which accounts for 30% of total national health expenditures, increased by 8.6% in 2004 (Table 123). Spending for prescription drugs increased 8.2% in 2004, compared with an average annual growth of 13% from 2000 to 2003. Spending for prescription drugs accounted for 10% of national health expenditures in 2004.

Overall, private health insurance paid for 36% of total personal health care expenditures in 2004, the federal government 34%, state and local government 11%, and out-of-pocket payments paid for 15% (Figure 9). The percentage of the population under 65 years of age with no health insurance coverage at the time they were interviewed fluctuated around 16%–18% between 1994 and 2004 (Figure 6 and Table 135).

Many people under age 65, particularly those with low incomes, do not have health insurance coverage consistently throughout the year. In 2004, about 20% of people under age 65 reported that they had been uninsured for at least part of the 12 months prior to their interview (Figure 7). In 2004, only 2% of people under age 65 who were insured continuously for all 12 months before their interview reported that they did not receive needed medical care due to cost, compared with about 20% of people who were uninsured for at least part of the 12 months before their interview (Table 78).

Disparities in Risk Factors, Access, and Utilization

Efforts to improve Americans' health in the 21st century will be shaped by important changes in demographics. Ours is a Nation that is growing older and becoming more racially and ethnically diverse. In 2005, nearly one-third of adults and about two-fifths of children were identified as black, Hispanic, Asian, American Indian or Alaska Native. In 2005, 14% of Americans identified themselves as Hispanic, 12% as black, and 4% as Asian (Figure 3).

Residents of institutions such as nursing homes, military barracks, and prisons have specialized health care needs and these populations are not generally included in many of the surveys that assess our Nation's health. Among men age 20–34 years, 11%–13% of non-Hispanic black men, 3%–4% of Hispanic men, and about 2% of white non-Hispanic men resided in local jails or state or federal prisons on June 30, 2004 (Table 2).

Health, United States, 2006, identifies major disparities in health and health care by socioeconomic status, race, ethnicity, and insurance status. Persons living in poverty are considerably more likely to be in fair or poor health and to have disabling conditions, and less likely to have used many types of health care than those with incomes of 200% of the poverty line or higher (Tables 58, 60, and 78–80). In 2004, adults living in poverty were almost twice as likely to report having trouble seeing—even with eyeglasses or contact lenses—as higher income persons (Table 59). Adults 45–64 years of age living below the federal poverty line were two to three times as likely to have three or more chronic conditions as those with incomes of 200% of the poverty line or higher (Figure 15).

Significant racial and ethnic disparities remain across a wide range of health measures. The gap in life expectancy between the black and white populations has narrowed, but persists (Table 27). Disparities in risk factors, access to health care, and morbidity also remain. Hispanic and American Indian persons under 65 years are more likely to be uninsured than those in other racial and ethnic groups (Table 135). Obesity, a major risk factor for many chronic diseases, varies by race and ethnicity—51% of black non-Hispanic women age 20 and over were obese in 2001–2004, compared with 39% of women of Mexican origin and 31% of non-Hispanic white women (Table 73, age adjusted). In 2003–2004, about two-thirds of non-Hispanic white older adults and about one-half of Hispanic and non-Hispanic black older adults received influenza vaccinations in the past year (Figure 20). In 1999–2002, Mexican-origin children 6–17 years of age were almost twice as likely to have untreated caries as were non-Hispanic white school-age children (Figure 14 and Table 75).

Many aspects of the health of the Nation have improved, but the health of some racial and ethnic groups has improved less than others. The large differences in health status by race and Hispanic origin documented in this report may be explained by factors including socioeconomic status, health practices, psychosocial stress and resources, environmental exposures, discrimination, and access to health care (7). Socioeconomic and cultural differences among racial and ethnic groups in the United States will likely continue to influence future patterns of disease, disability, and health care use.

Special Feature: Pain

Pain is a major determinant of quality of life, and affects physical and mental functioning. In addition to the direct costs of treating pain—including health care for diagnosis and treatment, drugs, therapies, and other medical costs—it results in lost work time and reduced productivity and concentration at work, or while conducting other activities (8,9). Although pain serves the important function of identifying tissue damage or inflammation, when the damage has healed and the pain remains, identifying either the cause of the remaining pain, or how to treat it, can be frustrating, time-consuming, and expensive.

In 1999–2002, more than one-quarter of Americans (26%) age 20 and over reported that they had a problem with pain—of any sort—that persisted for more than 24 hours in duration at some time during the month preceding their interview (Figure 28). Almost 60% of adults 65 years of age and over who reported pain indicated that it lasted for 1 year or more, compared with 37% of younger adults age 20–44 years who reported pain (Figure 29). In general, women reported pain more than men, and non-Hispanic white adults reported pain more than people of other races and ethnicities. Lower-income adults also reported pain more than higher-income adults (Figures 28, 31, and 32). Prevalence of joint pain increased with age with about one-fifth of adults age 18–44 years, and one-half of people age 65 and over, reporting any joint pain in the last 30 days (Figure 32). Severe headaches or migraines were twice as common among adult women as men (21% compared with 10%), and are most common among women in their reproductive years (Table 56).

A considerable amount of health care resources is devoted to treating pain, and the amount has been increasing. For example, rates of hospitalizations with procedures to replace painful hips and knees have increased substantially in the last decade (Figure 35). In 2002–2003, ambulatory medical care or prescribed medicine expenses for headaches averaged \$566 per person for headache-related care among noninstitutionalized adults who reported a headache expense, representing more than \$4 billion in total expenses—not including self-treatment, over-the-counter drugs, and inpatient hospital expenses for this condition (Figure 36). The percentage of people using prescription narcotic drugs in the past month increased by 30% between 1988–1994 and 1999–2002, largely due to increased use among non-Hispanic white women and women age 45 years and over (Figure 34 and data table for Figure 34). Yet, even with greater use of

pain relieving medications, surgical interventions, and other treatments, in 1999–2002 more than 10% of Americans age 20 and over reported pain that had lasted for more than 1 year (data tables for Figures 28 and 29).

To improve the health of all Americans and to enable policymakers to chart future trends, target resources most effectively, and set program and policy priorities, it is critical that the Nation keep collecting and disseminating reliable and accurate information about all components of health, including current health status, the determinants of health, resources, and outcomes. The following highlights from *Health, United States, 2006 With Chartbook on Trends in the Health of Americans* summarize the latest findings gathered from across the public and private health care sectors to help the Department of Health and Human Services, the President, and the Congress in carrying out this essential mission.

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Highlights

Health, United States, 2006, is the 30th report on the health status of the Nation. In a chartbook and 147 trend tables, it presents current and historic information on the health of the U.S. population. The trend tables are organized around four major subject areas: health status and determinants, health care utilization, health care resources, and health care expenditures and payors. The 2006 Chartbook on Trends in the Health of Americans focuses on selected determinants and measures of health and includes a special feature on pain, which affects quality of life for virtually all Americans at some point in their lives.

Life Expectancy and Mortality

Life expectancy and infant mortality rates are often used to gauge the overall health of a population. Life expectancy shows a long-term upward trend and infant mortality shows a long-term downward trend. As overall death rates have declined, racial and ethnic disparities in mortality persist, but the gap in life expectancy between the black and white populations has narrowed.

In 2004, **life expectancy** at birth for the total population reached a record high of 77.9 years (preliminary data), up from 75.4 years in 1990 (Table 27).

Between 1990 and 2004, **life expectancy at birth** increased 3.4 years for **males** and 1.6 years for **females** (preliminary data). The gap in life expectancy between males and females narrowed from 7.0 years in 1990 to 5.2 years in 2004 (Figure 24 and Table 27).

Between 1990 and 2004 (preliminary data), **life expectancy at birth** increased more for the **black** than for the **white population**, thereby narrowing the gap in life expectancy between these two racial groups. In 1990, life expectancy at birth for the white population was 7.0 years longer than for the black population. By 2004, the difference had narrowed to 5.0 years (Table 27).

Overall mortality was 29% higher for **black Americans** than for white Americans in 2004 (preliminary data) compared with 37% higher in 1990. In 2004, age-adjusted death rates for the black population exceeded those for the white population by 44% for **stroke**, 30% for **heart disease**, 23% for **cancer**, and 774% for **HIV disease** (preliminary data and Table 29).

In 2004, the **infant mortality** rate decreased to 6.8 infant deaths per 1,000 live births (preliminary data). In 2002, the infant mortality rate had increased for the first time in more than 40 years (Figure 25 and Table 22).

Large disparities in **infant mortality** rates among **racial and ethnic groups** continue to exist. In 2003, infant mortality rates were highest for infants of non-Hispanic black mothers (13.6 deaths per 1,000 live births), American Indian mothers (8.7 per 1,000), and Puerto Rican mothers (8.2 per 1,000); and lowest for infants of Cuban mothers (4.6 per 1,000 live births) and Asian or Pacific Islander mothers (4.8 per 1,000) (Table 19).

The **leading cause of death** differs by age group. In 2004, the leading cause of death was congenital malformations for infants; unintentional injuries for children, adolescents, and young adults (age 1–44 years); cancer for middle-aged adults age 45–64 years; and heart disease for older adults age 65 years and over (preliminary data and Table 32).

Age-adjusted mortality from **heart disease**, the leading cause of death overall, declined 16% between 2000 and 2004 (preliminary data), continuing a long-term downward trend (Figure 27 and Table 36).

Age-adjusted mortality from **cancer**, the second leading cause of death overall, decreased 8% between 2000 and 2004 (preliminary data), continuing the decline that began in 1990 (Figure 27 and Table 38).

The age-adjusted death rate for **motor-vehicle injuries** has remained stable between 2000 and 2004 (preliminary data) after declining steadily between 1970 and 2000. Death rates for motor vehicle injuries are higher at age 15–24 years and 75 years and over than at other ages (Table 44).

The age-adjusted death rate for **HIV disease** has declined slowly between 1999 and 2004 (preliminary data), after a sharp decrease between 1995 and 1999. The death rate for HIV disease is higher at age 35–54 years than at other ages (Table 42).

In 2004, **homicide** continued to be the leading cause of death for young **black males 15–24 years of age**. The homicide rate for young black males declined by 12% from 2003 to 2004 (preliminary data and Table 45).

In 2003, young **American Indian males 15–24 years of age** continued to have substantially higher death rates for motor vehicle-related injuries and for suicide than young males in

other race/ethnicity groups. Death rates for the American Indian population are known to be underestimated (Tables 44 and 46).

The **suicide rate for non-Hispanic white men 65 years of age and over** is higher than in other groups. In 2003, the suicide rate for older non-Hispanic white men was 2–4 times the rate for older men in other race/ethnicity groups and about 8 times the rate for older non-Hispanic white women (Table 46).

Health Behaviors

Health behaviors have a significant effect on health status. Pregnant teenagers are less likely to receive early prenatal care and more likely to drop out of school and to live in poverty, than are other parents. Heavy and chronic use of alcohol and use of illicit drugs increase the risk of disease and injuries. Cigarette smoking increases the risk of lung cancer, heart disease, emphysema, and other diseases. Regular physical activity lessens the risk of disease and enhances mental and physical functioning.

The **birth rate for teenagers** declined in 2004 for the 13th consecutive year, to 41.1 births per 1,000 women age 15–19 years, 1% lower than in 2003. Rates declined for teenagers age 15–17 years and 18–19 years, but increased for teenagers age 10–14 years (Table 4).

In 2004, the **birth rate for unmarried women** reached a record high of 46.1 births per 1,000 unmarried women age 15–44 years, up 3% from 2003. In 2004, 36% of all births were to unmarried women and the percentages generally increased for all age, race, and Hispanic origin subgroups (Table 10).

Between 2003 and 2005, the percentage of **high school students who reported smoking cigarettes** in the past month remained stable at 22%–23% after declining from 36% in 1997 (Figure 10).

In 2005, 30% of **students in grades 11–12** reported **binge drinking** five or more alcoholic drinks in a row and 22% reported **marijuana use** in the past month (Figure 11).

Between 1993 and 2005, the percentage of **high school students** who reported attempting suicide (8%–9%) and whose **suicide attempts** required medical attention (2%–3%) remained fairly constant. Girls were more likely than boys to consider or attempt suicide. However in 2003 adolescent boys

(15–19 years of age) were more than 4 times as likely to die from suicide as were adolescent girls, in part reflecting their choice of more lethal methods, such as firearms (Tables 46 and 62).

The percentage of adults who reported consuming **five or more alcoholic drinks in one day** declines with age. In 2004, among current drinkers, 56% of adults 18–24 years of age compared with 9% of adults 65 years of age and over reported this level of alcohol consumption in the past year (Table 68).

In 2004, 23% of men and 19% of women 18 years of age and over were **current smokers**. This is a sharp decline from 1965, when more than one-half of adult men and one-third of adult women smoked, but declines have slowed since 1990 (Table 63).

In 2004, almost one-third of **adults 18 years of age and over engaged in regular leisure-time physical activity**. Adults in families with incomes above twice the poverty level were more likely to engage in regular leisure-time physical activity (34%) than adults in lower-income families (20%–21%) (age adjusted) (Table 72).

More than one-half of adults **65 years of age and over** were inactive in their leisure-time, one-quarter had some level of leisure-time activity with an additional 22% reporting regular **leisure-time activity** in 2004 (Table 72).

Health Status and Risk Factors

Measures of morbidity presented in this report include the incidence and prevalence of specific diseases and conditions. Other measures of health status include limitation of activity and limitations in activities of daily living caused by chronic conditions, and respondent-assessed health status.

Low birthweight is associated with elevated risk of death and disability in infants. In 2004, the low birthweight rate (less than 2,500 grams, or 5.5 pounds, at birth) increased to 8.1%, up from 7.0% in 1990 (Table 13).

Between 1976–1980 and 2003–2004, the prevalence of **overweight among children** 6–11 years of age more than doubled from 7% to 19% and the prevalence of overweight among **adolescents** 12–19 years of age more than tripled from 5% to 17% (Figure 13 and Table 74).

Among adults 20–74 years of age, **overweight and obesity** rates have increased since 1960–1962. These increases are driven largely by increases in the percentage of adults who are obese. From 1960–1962 through 2003–2004, the percentage of adults who are overweight but not obese has remained steady at 32%–34% (age adjusted). During that time period, the percentage of obese adults has increased from 13% to 34% (age adjusted) (Figure 13 and Table 73).

The prevalence of **hypertension**, defined as elevated blood pressure or taking antihypertensive medication, increases with age. In 2001–2004, 30% of men and 33% of women age 45–54 years had hypertension, compared with 69% of men and 82% of women age 75 years and over (Table 69).

Between 1988–1994 and 2001–2004, the percentage of adults with **elevated serum cholesterol levels** greater than 240 mg/dL declined substantially for older adults. However, older women were more likely to have high serum cholesterol than men. In 2001–2004, 26% of women age 65–74 years had high serum cholesterol, compared with 11% of men age 65–74 years (Table 70).

In 2001–2004, the prevalence of **diabetes** (including diagnosed and undiagnosed) increased with age from 11% among adults 40–59 years of age to 23% among adults 60 years of age and over. The percentage of adults with undiagnosed diabetes was 3% among those 40–59 years of age and 6% among those 60 years of age and over (Table 55).

In 2004, approximately 2.2 million **workplace injuries and illnesses** in the private sector involved days away from work, job transfer, or restricted duties at work for a rate of 2.5 cases per 100 full-time workers. Transportation and warehousing reported the highest injury and illness rate, 4.9 cases per 100. The next highest rates were reported by the agriculture, forestry, fishing and hunting (3.7 per 100), and manufacturing industries (3.6 per 100) (Table 50).

Poor and near poor **children** are more likely to have **untreated dental caries** than children in families with incomes above twice the poverty level. In 1999–2002, 32% of poor children 6–17 years of age had untreated dental caries, compared with 13% of children in families with incomes at least twice the poverty level (Table 75).

Between 1988–1994 and 1999–2002, approximately one-quarter (24%–28%) of **adults 18–64 years of age** had

untreated dental caries, down from nearly one-half (48%) in 1971–1974 (Table 75).

In 2004, 17% of persons 65 years of age and over had any **trouble seeing** even with glasses and 11% were deaf or had a lot of **trouble hearing** (Table 59).

In 2004, **limitation of activity** due to chronic health conditions was reported for 7% of **children** under the age of 18 years. Among school-age children (5–17 years of age), learning disabilities and Attention Deficit/Hyperactivity Disorder (ADHD or ADD) were frequently reported as a cause of activity limitation (Figure 16 and Table 58).

Arthritis and other musculoskeletal conditions were the leading **cause of activity limitation** among working-age **adults 18–64 years** of age in 2003–2004. Mental illness was the second most frequently mentioned condition causing activity limitation among adults 18–44 years of age and the third most frequently mentioned among adults 45–54 years of age (Figure 17).

Among persons **age 65 years of age and over**, arthritis and heart disease or other circulatory conditions were the two most frequently reported causes of **activity limitation** in 2003–2004 (Figure 18).

Health Care Access and Utilization

People use health care services for many reasons: to treat illnesses, injuries, and health conditions; to prevent or delay future health care problems; to reduce pain and increase quality of life; and to obtain information about their health status and prognoses. The health care delivery system offers a wide variety of services, ranging from preventive and primary care, to new and better medicines, to use of sophisticated and increasingly technological and complex procedures and interventions.

In 2003–2004, 6% of children under 6 years of age and 15% of children 6–17 years of age had **no health care visit** to a doctor or clinic within the past 12 months (Table 79).

Adults 18–64 years of age were the most likely to report **not receiving needed medical care or delaying their care due to cost**. In 2004, 7% of adults 18–64 years of age reported that they did not get needed care during the past 12 months, 10% delayed care, and 9% did not get prescription drugs due to the cost (Table 78).

In 2004, 20%–21% of people under age 65 years who were uninsured for all or part of the preceding year **did not receive needed health care** in the past 12 months **due to cost**, compared with 2% of people with health insurance for the full year (Table 78).

Almost all adults 65 years of age and over have Medicare coverage. Despite having this health insurance, among those with incomes below or near the poverty level, in 2004, 4%–6% **did not get needed medical care** during the past 12 months, 6%–9% **delayed their care**, and 8%–12% **did not get the prescription drugs** they needed due to the cost. Medicare coverage for prescription drugs began in 2006 (Table 78).

In 2003–2004, **visit rates to physician offices and hospital outpatient departments** among persons 18–44 years of age were more than twice as high for women as for men, largely due to medical care associated with female reproduction (Figure 22).

The percentage of mothers receiving **prenatal care** in the first trimester of pregnancy remained unchanged at 84% for the 43-state reporting areas for which comparable trend data were available in 2004. In 2004 the percentage of mothers with early prenatal care varied substantially by race and ethnicity, from 70% for American Indian mothers to 89% for non-Hispanic white mothers (Table 7).

In 2004, 83% of children 19–35 months of age received the **combined vaccination** series of four doses of DTaP (diphtheria-tetanus-acellular pertussis) vaccine, three doses of polio vaccine, one dose of MMR (measles-mumps-rubella vaccine), and three doses of Hib (Haemophilus influenzae type b) vaccine. Children living below the poverty threshold were less likely to have received the combined vaccination series than were children living at or above poverty (78% compared with 85%) (Table 81).

In 2004, 65% of noninstitutionalized adults **65 years of age and over** reported an **influenza vaccination** within the past year, more than double the percentage in 1989. In 2004, the percentage of older adults ever having received a pneumococcal vaccine was 57%, up sharply from 14% in 1989 (Table 83).

In 2004, 54% of **children 2–5 years of age** and 84% of children 6–17 years of age had a **dental visit** in the past year. Children with family income below or near the poverty

level were less likely than children with higher family income to have had a visit (Figure 19 and Table 91).

Use of **prescription medications** among adults increases with age. In 1999–2002, the percentage of adults who reported using prescription medications in the prior month rose from 36% of those 18–44 years of age to 64% at 45–64 years of age and 85% at 65 years of age and over. In each age group women were more likely than men to use prescription drugs (Table 93).

In 1999–2002, more than one-half of adults 65 years of age and over took **three or more prescription drugs** in the past month (Table 93).

In 2004, adults 75 years of age and over had a higher **rate of visits to the hospital emergency department** than other age groups (58 visits per 100 persons compared with 29–45 per 100 persons in other age groups) (Table 89).

Children under 6 years of age were more likely than children 6–17 years of age to have had an **emergency department (ED) visit** within the past 12 months in 2004 (26% compared with 18%) (Table 86).

In 2003–2004, **falls** accounted for 34% of **hospital emergency department injury visits** for men 65 years of age and over and 48% for women in that age group. Falls also accounted for 22%–24% of children's injury-related visits to emergency departments (Table 88).

Heart disease and injuries were among the most common reasons for **inpatient hospitalization** among adults 45–64 years of age in 2004. Among this age group, the **discharge rate** for heart disease was 80% higher for men than for women and the discharge rate for injuries was 18% higher for men than women (Table 97).

Between 1993–1994 and 2003–2004, the hospital discharge rate for **cardiac catheterization** among adults 75 years of age and over increased 42%, while the rate among adults 65–74 years of age remained stable. By 2003–2004, the cardiac catheterization rate for adults 75 years of age and over had risen to a level similar to that for adults 65–74 years of age (Table 99).

The number of **gastric bypass and other inpatient bariatric procedures** performed on obese adults 18–44 years of age more than tripled between 1999–2001 and 2002–2004 (data table for Figure 23). Bariatric procedures were more common among women than men (Figure 23).

Between 1992–1993 and 2003–2004, the hospital discharge rate for **knee replacement surgery**, which is typically performed for osteoarthritis, nearly doubled among **adults 65 years of age and over** (Figure 35).

Health Care System Influences, Resources, and Personnel

Major changes continue to occur in the delivery of health care in the United States, driven in part by changes in payment policies intended to rein in rising costs and by advances in technology that have allowed more complex treatments to be performed on an outpatient basis. Hospital inpatient utilization has been stable in recent years. The number of physicians continues to increase, but supply is not equally distributed across the country, and some office-based physicians are not accepting new patients. The supply of other practitioners, including pharmacists and nurses, may not be increasing as rapidly as needed to keep in pace with our aging population.

In 2004, 43% of **doctor visits** were to specialty care physicians, up from 34% in 1980. During this period, the proportion of office-based doctor visits to general and family practice physicians decreased from 34% to 23% (Table 90).

In 2004, 63% of **surgeries** were performed on an **outpatient** basis, compared with 51% in 1990 and 16% in 1980 (Table 100).

The age-adjusted average **length of inpatient hospital** stays has remained stable at 4.8 to 4.9 days during the period 2000–2004, after declining from 7.5 days in 1980 (Table 96).

Between 1990 and 2004, the number of **community hospital beds** declined from about 927,000 to 808,000. Since 1990, the community hospital occupancy rate has remained steady at 62%–67% (Table 112).

Between 1990 and 2002, the overall number of **inpatient mental health beds** in the United States declined by 22%. In Veterans Affairs medical centers the number of mental health beds declined by 55%, in state and county mental hospitals and private psychiatric hospitals the decline was 42%, and in psychiatric units of non-federal general hospitals the decline was 25% (Table 113).

In 2004, there were over 7,500 Medicare-certified **home health agencies**, up from about 6,900 in 2003, but below the high of 10,800 in 1997. The number of Medicare-certified

hospices increased to over 2,600 after remaining stable at about 2,300 from 1997 to 2003 (Table 118).

In 2004, there were nearly 1.8 million **nursing home beds** in about 16,000 facilities certified for use by Medicare and Medicaid beneficiaries. Between 1995 and 2004, nursing home bed occupancy was relatively stable, estimated at 83% in 2004. **Occupancy rates** were 90% or higher in 11 states and the District of Columbia in 2004 (Table 116).

Between 1999 and 2004, the **number** of dental hygienists and assistants, diagnostic medical sonographers, pharmacy technicians, massage therapists, and medical equipment preparers increased by 6%–12% annually. The **hourly wages** of pharmacists, radiation therapists, physician assistants, and nuclear medicine technologists rose 6%–8% annually (Table 108).

In 2003–2004, 27% of **physicians** reported they were not accepting new Medicaid patients and 41% were not accepting new capitated privately insured patients, compared with 12%–14% not accepting new Medicare and non-capitated privately-insured patients. Two-fifths of physician offices perform some lab tests in the office. Practices with 10 or more physicians were more likely to perform lab tests in the office (62%) than offices with one physician (27%) (Table 117).

Health Insurance Coverage and Payers

Major payors for health care include public programs such as Medicare and Medicaid, and private health insurers. Medicaid is jointly funded by the federal and state governments to provide health care for certain groups of low-income persons. Medicare is funded through the federal government and covers the health care of most persons 65 years of age and over and disabled persons. Almost 70% of the population under 65 years of age has private health insurance, most of which is obtained through the workplace.

Uninsured Population

Between 1995 and 2004, the percentage of the **population under 65 years of age with no health insurance coverage** (public or private) at a point in time ranged between 16.1% and 17.5%. Among the under 65 population, the poor and near poor (those with family incomes less than 200% of

poverty) were much more likely than the nonpoor to be uninsured (Figure 6 and Table 135).

In 2004, 9% of children under 18 years of age had **no health insurance coverage** at a point in time. Between 2000 and 2004, among children in families with income just above the poverty level (100%–150% of poverty), the percentage uninsured dropped from 25% to 16%. However, children in low-income families remained substantially more likely than children in higher-income families to lack coverage (Table 135).

In 2004, 30% of **young adults** 18–24 years of age were uninsured at a point in time. This age group was more than twice as likely to be uninsured as those 45–64 years of age (Table 135).

In 2004, persons of **Hispanic origin and American Indians** under 65 years of age were more likely to have **no health insurance coverage** at a point in time than were those in other racial and ethnic groups. Non-Hispanic white persons were the least likely to lack coverage (Table 135).

Many people under 65 years of age, particularly those with a low family income, do not have health insurance coverage consistently throughout the year. In 2004, one-fifth of people under 65 years of age **were uninsured for at least part of the 12 months prior to interview**. Two-fifths of people of Mexican origin were similarly uninsured for at least part of the 12 months prior to interview (data table for Figure 7).

The likelihood of being **uninsured** varies substantially among the **states**. In 2002–2004, the average percentage of the population with no health insurance coverage ranged from 8.5% in Minnesota to 25% in Texas (Table 147).

Private Health Insurance

During 2002 to 2004, 69% of the population under 65 years of age had **private health insurance**. Between 1995 and 2001 the proportion had fluctuated between 71%–73% after declining from 77% in 1984 (Figure 6 and Table 133).

Between 2001 and 2004, the proportion of the population under 65 years of age with **private health insurance obtained through the workplace** (a current or former employer or union) declined from 67% to 64% (Table 133).

Federal and State Health Insurance Programs

In 2005, the **Medicare** program had about 43 million **enrollees and expenditures** of \$336 billion (preliminary data Table 137).

Of the 36 million **Medicare enrollees in the fee-for-service program** in 2003, 11% were 85 years of age and over and 16% were disability beneficiaries under 65 years of age (Table 138).

In 2004, among children under 18 years of age, 26% were covered by **Medicaid or the State Children's Health Insurance Program**, a 7 percentage point increase since 2000 (Table 134).

In 2003, children under 21 years of age accounted for 48% of **Medicaid recipients** but only 17% of expenditures. Aged, blind, and disabled persons accounted for 23% of recipients and 67% of expenditures (Table 140).

Health Care Expenditures

The United States spends more on health per capita than any other country, and health spending continues to increase rapidly. Spending increases are due to increased intensity and cost of services, and a higher volume of services needed to treat an aging population.

The United States spends a larger **share of the gross domestic product (GDP) on health** than does any other major industrialized country. In 2003, the United States devoted 15% of its GDP to health, compared with over 11% in Switzerland and Germany, and more than 10% in Iceland, France, and Norway, the countries with the next highest shares (Table 119).

In 2004, **national health care expenditures** in the United States totaled \$1.9 trillion, a 7.9% increase compared with an 8.6% per year increase from 2000–2003. In the 1990s, annual growth had slowed to 6.6% following an average annual growth rate of 11% during the 1980s (Table 120).

In 2004, national health expenditures in the United States grew 7.9%, compared with 7.0% growth in the GDP. **Health expenditures as a percentage of the GDP** was 16% in 2004 (Figure 8 and Table 120).

Prescription drug expenditures increased 8.2% in 2004, compared with 10.2% in 2003 and 14.3% in 2002.

Prescription drugs posted annual increases of 3%–5% in the Consumer Price Index in 2000 to 2005 (Tables 121 and 123).

Expenditures for hospital care accounted for 30% of all national health expenditures in 2004. Physician services accounted for 21% of the total in 2004, prescription drugs for 10%, and nursing home care for 6% (Table 123).

In 2003, 96% of persons 65 years of age and over in the civilian noninstitutionalized population reported **medical expenses** that averaged about \$8,210 per person with expense. Nineteen percent of expenses were paid out-of-pocket, 16% by private insurance, and 63% by public programs (primarily Medicare and Medicaid) (Tables 125 and 126).

The burden of **out-of-pocket expenses** for health care varies considerably by age. In 2003, over two-fifths of those 65 years of age and over with health care expenses paid \$1,000 or more out-of-pocket, compared with 29% of those 45–64 years of age, and 12% of adults 18–44 years of age (Table 127).

In 2004, 34% of **personal health care expenditures** were paid by the federal government and 11% by state and local government; private health insurance paid 36% and consumers paid 15% out-of-pocket (Figure 9 and Table 124).

Special Feature: Pain

Pain affects physical and mental functioning, and can profoundly affect quality of life. In addition to the direct costs of treating pain—including visits for diagnosis and treatment, drugs, therapies, and other medical costs—it can cause loss of productivity and concentration. Patterns of self-reported pain vary considerably by age, sex, race and ethnicity, and poverty.

In 1999–2002, more than one-quarter of Americans (26%) 20 years of age and over reported that they had a problem with **pain in the past 30 days** that persisted for more than 24 hours (Figure 28).

Nearly 60% of adults 65 years of age and over who reported pain lasting more than 24 hours stated that it **lasted for one year or more** compared with 37% of young adults 20–44 years of age who reported pain in 1999–2002 (Figure 29).

In 2004, more than one-quarter of adults 18 years of age and over reported experiencing **low back pain** in the past 3 months (Figure 30 and Table 56).

In 2004, 15% of adults 18 years of age and over reported experiencing **migraine or severe headache** in the past 3 months. The percentage of young adults 18–44 years of age who reported migraine or severe headache was almost three times the percentage for adults 65 years of age and over (Figure 30 and Table 56).

In 2004, almost one-third of adults 18 years of age and over and one-half of older adults 65 years of age and over reported **joint pain**, aching, or stiffness (excluding the back or neck) during the 30 days prior to interview. The knee was the site of joint pain most commonly reported in all age groups (Table 57).

In 2003, the percentage of adults 18 years of age and over who reported **severe joint pain** increased with age. Women were more likely to report severe joint pain than men (10% compared with 7%) (Figure 32).

In 2003–2004, 50% of **ED visits** for persons with a severe pain recorded had **narcotic analgesic drugs** prescribed, or provided during the visit. Among visits with severe pain recorded, those made by children under 18 years of age and adults 65 years of age and over were less likely than visits by persons in other age groups to have a narcotic drug provided in the ED (Figure 33).

The percentage of adults who reported using a **narcotic drug in the past month** increased from 3.2% in 1988–1994 to 4.2% in 1999–2002 (age adjusted). This increase has been driven largely by an increase in narcotic drug use among white non-Hispanic women and women 45 years of age and over (Figure 34).

Between 1992–1993 and 2003–2004, the hospital discharge rate for **knee replacement** among adults 65 years of age and over increased by nearly 90%, from 39 to 73 discharges per 10,000 persons. Knee replacement was more common among older women than older men (Figure 35).

Between 1992–1993 and 2003–2004, the hospital discharge rate for **hip replacement** among adults 65 years of age and over (excluding those performed for fractured hips) increased almost 60% from 25 to 40 discharges per 10,000 population. Nonfracture hip replacement rates were similar among older men and women (Figure 35).

In 2002–2003, 3.5% of adults 18 years of age and over had ambulatory care visits or prescribed medicine purchases to treat **migraines or other types of headache** during the year. Their **average annual expenditure** for these treatments was \$566 (in 2003 dollars) (data table for Figure 36).

In 2004, 28% of adults 18 years of age and over **with low back pain** in the past 3 months said they had a **limitation of activity** caused by a chronic condition, compared with 10% of adults who did not report recent low back pain. People with recent low back pain were almost five times as likely to have **serious psychological distress** as people without recent low back pain (Figure 37).